



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/966,393	09/28/2001	Jin-Meng Ho	TI-32700	6506

23494 7590 11/30/2005  
TEXAS INSTRUMENTS INCORPORATED  
P O BOX 655474, M/S 3999  
DALLAS, TX 75265

EXAMINER
----------

TODD, GREGORY G

ART UNIT	PAPER NUMBER
----------	--------------

2157

DATE MAILED: 11/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	09/966,393	HO ET AL.	
	Examiner	Art Unit	
	Gregory G. Todd	2157	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 September 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2 and 4-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date. _____  | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Response to Amendment***

1. This is a second office action in response to applicant's response to restriction filed, 09 September 2005, of application filed, with the above serial number, on 28 February 2001 in which claims 17-34 have been cancelled. Claims 1, 2, and 4-16 are therefore pending in the application.

### ***Claim Objections***

2. Claim 1 is objected to because of the following informalities: The claim does not end with a period. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 7 recites the limitation "the fourth specified time period" in line 1. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the

Art Unit: 2157

applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1, 2, and 4-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Fogle (hereinafter "Fogle", 6,813,260).

As per Claim 1, Fogle teaches a method for initiating a contention-free burst by a hybrid coordinator (station) of a network of stations capable of communicating directly to other stations in the network using a shared communications medium (at least col. 6, lines 20-30) comprising:

determining whether the shared communications medium is busy or idle (at least col. 7, lines 30-45; 7-15; determining if medium is busy);

if the shared communications medium is idle, determining whether the medium has been idle for a first predetermined time period (at least col. 7, lines 30-45; 7-15; determining if medium is idle at time), and:

if so, transmitting information immediately (at least col. 7, lines 30-45; 7-15; determining if medium is idle at time), and

if not, waiting until the medium has been idle for the first predetermined time period, and then transmitting information (at least col. 7, lines 7-67; backoff period); and

if the shared communications medium is busy, determining whether the shared communications medium is busy due to a transmission from a station within the network

Art Unit: 2157

(at least col. 7, lines 30-45; 7-15; determining if medium is busy on shared medium),  
and:

if so, transmitting information after a second predetermined time period after the shared communications medium becomes idle (at least col. 7 line 7 - col. 8 line 59; transmitting after a single or multiple PIFS and/or DIFS period(s)), and

if not, transmitting information after a third predetermined time period after the shared communications medium becomes idle (at least col. 7 line 7 - col. 8 line 59; transmitting after a single or multiple PIFS and/or DIFS period(s)).

As per Claim 2. The method of claim 1, wherein the first predetermined time period is a point coordination function inter-frame space (PIFS) period (at least col. 7, lines 30-45).

As per Claim 4. The method of claim 1, wherein the second predetermined time period is a short inter-frame space (SIFS) period (at least col. 6, lines 32-42; col. 8, lines 28-59).

As per Claim 5. The method of claim 1, wherein the third predetermined time period is a point coordination function inter-frame space (PIFS) period (at least col. 6, lines 32-42; col. 8, lines 28-59).

As per Claim 6. The method of claim 1, wherein the contention-free burst is of limited duration and the hybrid coordinator has more information to transmit than can be transmitted in the contention-free burst, the method further comprises: (1) waiting a fourth predetermined time period after the completion of the contention-free burst; (2)

Art Unit: 2157

generating a backoff time; (3) initiating a backoff procedure; and (4) initiating a new contention-free burst when the backoff procedure completes (at least col. 7 line 63 - col. 8 line 59).

As per Claim 7. The method of claim 6, wherein the fourth specified time period is a point coordination function inter-frame space (PIFS) period (at least col. 7 line 63 - col. 8 line 59).

As per Claim 8. The method of claim 6, wherein the step of initiating a backoff procedure comprises:

inserting the backoff time into a backoff timer; decrementing the backoff timer each time an idle slot expires; and completing the backoff procedure when the backoff counter reaches zero (at least col. 7, lines 45-62; waiting the number of intervals).

As per Claim 9. The method of claim 6, wherein the method is repeated until the hybrid coordinator transmits all of its information (at least col. 7 line 45 - col. 8 line 27).

As per Claim 10. The method of claim 6, wherein a second hybrid coordinator may take control of the shared medium by initiating a contention-free burst of its own while the hybrid coordinator is attempting to initiate a new contention-free burst (at least col. 7, lines 30-62; col. 6 line 32-52; STA2...STAn).

As per Claim 11. The method of claim 10, wherein the second hybrid coordinator may initiate the contention-free burst after the shared medium has been idle for a PIFS period (at least col. 7, lines 30-62; col. 6 line 32-52; station taking control).

Art Unit: 2157

As per Claim 12. The method of claim 6, wherein the backoff time is randomly chosen from a contention window of  $[0, CWHC)$  where  $CWHC = CWHC_{min} + 1$ , and  $CWHC_{min}$  is a prespecified value (at least col. 9, lines 9-52; eg.  $>0$ ).

As per Claim 13. The method of claim 12, wherein a collision occurs due to the initiating of the new contention-free burst, and wherein the method comprises an additional step of (5) repeating steps (1)-(4) with the backoff time being randomly chosen from a contention window of  $[0, 2 * CWHC)$  (at least col. 9 line 15 - col. 10 line 43).

As per Claim 14. The method of claim 13, wherein the contention window is doubled each time the method repeats due to a collision resulting from the initiating of the new contention-free burst (at least col. 9 line 15 - col. 10 line 43; waiting for next period).

As per Claim 15. The method of claim 14, wherein the contention window has a maximum size of  $[0, CWHC_{max} + 1)$  where  $CWHC_{max}$  is a prespecified value (at least col. 9 line 15 - col. 10 line 43).

As per Claim 16. The method of claim 15, wherein a default value of  $CWHC_{max}$  is equal to  $CWHC_{min}$  and  $CWHC_{min}$  is defaulted to three time slots (at least col. 8 line 54 - col. 9 line 52).

### ***Response to Arguments***

6. Applicant's arguments filed 16 May 2005 have been fully considered but they are not persuasive. Applicants argue, substantially, that Fogle is concerned primarily with

Art Unit: 2157

prioritized access in an isolated network, while the present invention is concerned with overlapping network.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., overlapping networks or more than one network) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). While the Examiner neither agrees nor counters Fogle's system as operating on a singular network, there is no language in the current invention's claims suggesting otherwise. In addition, the claims have been amended to include a "network of stations capable of communicating directly to other stations in the network using a shared communications medium", thus as can be seen all stations are on a single network.

### ***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any



Art Unit: 2157

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Newly cited Young et al, Watanabe et al, Ho et al, and Gubbi et al, in addition to previously cited Trainin et al, Fischer, Sambamurthy et al, Ghuman et al, Guo et al, and Tafazolli et al are cited for disclosing pertinent information related to the claimed invention. Applicants are requested to consider the prior art reference for relevant teachings when responding to this office action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory G. Todd whose telephone number is (571)272-4011. The examiner can normally be reached on Monday - Friday 9:00am-6:00pm w/ first Fridays off.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (571)272-4001. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Gregory Todd

Patent Examiner

Technology Center 2100

  
ABIO ETIENNE  
PRIMARY EXAMINER